REMARKS

This is in response to the rejection of February 13, 2006.

This application originally presented claims 1–44; applicant had responded to a restriction request by electing to prosecute claims 1–40. Applicant affirms this election; the Office Action indicates that claims 41–44 were withdrawn as being drawn to a non–elected invention. Applicant hereby cancels claims 41-44.

Applicant has amended the preamble of the independent claims 1, 12, 18, 24 and 30 to specify that auctioning of at least two types of items occurs in "an auction", i.e., one auction. These claims have also been amended to eliminate the restriction that the methods are "computer implemented". Applicant has also added apparatus claims 45-84, including independent claims 45 (corresponding to method claim 1), 56 (corresponding to method claim 12), 62 (corresponding to method claim 18), 68 (corresponding to method claim 24) and 74 (corresponding to method claim 30). Applicant asserts the newly added claims simply round out the protection to which the applicant is entitled. Patentability of the apparatus claims is based on the same arguments as those advanced for the corresponding method claims.

All the rejected claims (1-40) were rejected under 35 USC 103 with respect to the Growney patent publication (2005/0187859). Applicant notes that this patent publication has a filing date in 2005 although it claims to be a continuation of an application filed in 1999. Applicant has not seen the parent application and this response is prepared on the assumption that the subject-matter contained in the published application is also contained in the parent application.

While the earliest date for the Growney reference is Oct. 1999, there are claims in this application that are entitled to a May 1999 priority date. This application is a continuation in part of earlier application SN 09/573007, filed May 18, 2000. That application, in turn relies on the priority of provisional application 60/134,666 filed May 18, 1999. A copy of the provisional application is attached hereto as Exhibit A. Applicant asserts that claims 30 and 74 are

supported by the May 1999 application so these claims are entitled to a date which precedes any

date to which Growney is entitled. As a consequence these claims cannot be rejected on

Growney.

Claim 30 is compared to the disclosure of the provisional application as follows:

A method for conducting an auction of at least two types of items, each type of the items including plural items, the method comprising:	"Suppose that m (m ≥ 1) types of objects are being auctioned ..." (p. 2, line 13)
a) communicating a price vector, including a price for each of the types of items subject to the auction, to a plurality of bidders,	Fig. 1, step 104. "In step 104, the bidding information processor transmits ... the starting price vector $(P_1, ..., P_m)$...." (p. 5, line 27)
b) receiving bids from plural bidders wherein at least some of said bids identify quantities of items of different types,	Fig. 1, step 110. ".. a bidder responds with a bid vector indicating the quantity of each respective type of object that the bidder wishes to transact at the current price vector." (p. 2, lines 17-19)
c) determining, based on the received bids, whether the auction should continue, and in the event that the auction will continue	Fig. 1, Step 116, "Any objects remaining unassigned?"
d) sending to one or more bidders a revised price vector, and	Fig. 1, Step 118, "Increment $(P_1, ..., P_m)$, step 104, transmit price vector, as incremented
e) limiting any further bid from a bidder so that the sum of the number of items contained in a bid is less than or equal to the sum of the number of items contained in a bid submitted in the past.	Fig. 1, step 110, receive bids, fig. 3, step 112-1 – select a bidder, step 112-2 - recall bidders most recently previously processed bid, and step 112-3 – Does bidder's current bid satisfy the eligibility rule? As indicated at p. 8, line 9, the eligibility rule determines if $$\sum_{k \in G} Q_k^{i,t} \le \sum_{k \in G} Q_k^{i,t-1},$$ that is if the sum of the number of items contained in a bid is less than or equal to the sum of the number of items contained in a bid in the past, in this case, the most recently previously processed bid,.

As is apparent claim 74 is supported by the same disclosure. On this basis applicant asserts that claims 30, 74 are patentable notwithstanding the Growney patent publication or its 1999 parent application.

Section 706.02(j) of the MPEP specifies that three criteria must be met in order to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference or references must teach or suggest all the claimed limitations. The teachings or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. As will be described this obviousness rejection fails to demonstrate that the references disclose all of the claimed elements and there is no justification for going beyond the bounds of the limited disclosure found in the reference.

Claims 1-40, which have been rejected, include independent claims 1, 12, 18, 24 and 30. All the claims are directed at a method for conducting an auction of at least two types of items. All the rejected claims include some subject matter in common including:

a) "communicating a price vector, including a price for each of the types of items subject to the auction, to a plurality of bidders,

b) receiving bids from plural bidders wherein at least some of said bids identify quantities of items of different types,

c) determining, based on the received bids, whether the auction should continue, and in the event that the auction will continue,

d) sending to one or more bidders a revised price vector,

e) receiving further bids from plural bidders in response to the revised price vector".

The independent claims 1, 12, 18, 24 and 30 differ in the subject matter contained in clause "f" of the respective claims. Before getting the distinctions contained in the claims over the applied reference it is important to understand that the auction described in the reference is different from each of the auctions described in this application. As will become apparent many of those differences are carried over into the claims.

While the claims are limited an auction for auctioning multiple types of items, every auction described in the reference deals with only a single type of item; furthermore, each auction described in the reference deals with those items in a single lot. It might be argued that the reference contemplates multiple auctions (each of which may relate to a given type of item) so that the multiple auctions, in combination, might deal with more than one type of item. However none of these auctions is an *auction* "for auctioning multiple types of items" as claimed. In a given auction of the reference, rather than requiring the bidders to compete among themselves for the entire lot, the auction described in the reference enables bidders to bid on a subset of the available quantity. In other words, if we assume that the lot subject to an auction contains one hundred items, a bidder could either compete to purchase the entire lot of a hundred items or the bidder could bid for a quantity less than the entire lot, and specify a price for that quantity. A substantial portion of the reference is taken up in describing how a seller can value competing bids which cover different quantities, e.g. what price discrimination should a seller apply to a bidder asking for less than the entire lot?

In contrast, the auctions claimed herein are for auctioning multiple types of items where there may be multiple instances of each item. Because each auction handles multiple types of items, a price must be associated with each of the different types of items. This price information takes the form of a vector including multiple scalar quantities (the price) for each different type of item. The claims call for receiving "bids from plural bidders wherein at least some of said bids identify quantities of items of different types". Because each auction handles different types of items, even where the price for each item is specified (by the price vector previously communicated) in order to compete for multiple items, a bid must include quantities for the "different types" of items the bidder seeks.

The next step in each of the claims specifies that once the bids are available there is a determination "based on the received bids" as to whether the auction should continue. In the event the auction is determined to continue, the claims then specify "sending to one or more bidders a revised price vector". Typically, to make progress in the auction the price vector will change and thus this clause specifies sending to one or more bidders "a revised price vector".

Finally, each of the claims specifies that "further bids" are received "in response to the revised price vector".

Thus all the claims in the application call for first communicating a price vector which deals with plural items and communicating that vector to plural bidders, thereafter receiving bids from the bidders where at least some of the bids identify quantities of items of different types, determining whether the auction should continue and if it does, "sending...a revised price vector" and finally receiving "further bids...in response to the revised price vector".

In large part each of the claims distinguishes from the reference for at least four different reasons.

In the first place it is not clear that the reference teaches "communicating a price vector...to a plurality of bidders", nor is it clear the reference teaches communicating a vector which includes a price for each of the types of items where, as recited in the preamble the auction deals with "at least two types of items." While the reference describes price information that reaches a potential bidder or buyer, there is no disclosure that this price information comes in the form of a "price vector", i.e., an entity with multiple prices.

The second step called for in each of the claims is receiving bids where "at least some of said bids identify quantities of items of different types". As has been noted because the reference deals with an auction that relates to only a single type of item, even though bids are received, no bid meets the requirement of clause "b" in that none of the bids "identify quantities of items of different types".

The Office Action relies on paragraphs 16 and 64-68 to evidence bids identifying quantities of items of different types.

Paragraph 16 indicates that there are "many types of products that sellers would prefer to sell in larger quantities". However, the paragraph does not identify a bid which identifies quantities of items of different types, nor does the text of the reference suggest (anywhere) an auction might include such bid.

Paragraph 64 deals with Figure 4, a seller screen. This does not identify any bid much less a bid identifying quantities of items of different types.

Paragraph 66-67 deals with Figure 5, which is a different type of a seller screen. While different seller screens may deal with different sublot quantities, they are all lots constituting items of the same type. Thus the seller screens do not even identify items of different type much less bids containing quantities of items of a different type.

Paragraph 68 deals with the function of the bid manager who compares "different bids for different sublot quantities" in order to rank the bids and determine a winner. While these bids may deal with different sublots, they all deal with various quantities of items of the same type. Hence this paragraph (like all the other paragraphs in the reference) does not identify bids including quantities associated with items of different types.

The Office Action admits that the reference "does not explicitly disclose sending to one or more bidders a revised price vector." (Page 4) Confusingly, however, the Office Action does allege that the reference describes receiving "further bids from plural bidders in response to the revised price vector". Furthermore, the Office Action also asserts that even though there is no disclosure of a revised price vector, the reference does disclose "crediting at least one item at a price in the closed interval between the price contained in the price vector and the price contained in the revised price vector." Applicant submits that none of these assertions are either logical or supportable.

The claims also distinguish from the reference based on the subject matter of clause "d" e.g. "sending to one or more bidders or revised price vector". Just as there is no disclosure in the reference of a "price vector", there is likewise no disclosure of a "revised price vector", as claimed. As a consequence there is no description of "sending...a revised price vector" as claimed.

Finally, while the auction described in the reference does involve bids on the subject matter of the auction, since the auction described in the reference does not involve "a revised price vector", the bids which are reflected in the auction in the reference are not "in response to the revised price vector" as called for in clause "e" of all the claims.

The rejection acknowledges that the reference does not describe the "revised price vector" but argues "that this feature is known"; where that knowledge exists is not mentioned. The rejection argues that it is known, in auctions where one bid is revealed, to allow other bidders to revise their bid. However, this refers to the bid of another bidder, it does not correspond to a price and it certainly is not a "revised price vector" – which is what is claimed. Thus there is nothing in the rejection which corresponds to the "revised price vector" and the basis for a *prima facie* case of obviousness is flawed.

Clause "f" of claim 1 also distinguishes from the reference by specifying "crediting at least one item of a particular type with a particular bidder at a price in closed interval between the price contained in the price vector and the price contained in the revised price vector". In other words, a bidder is credited with at least one item of a particular type at a price which is either the price contained in the price vector, the price contained in the revised price vector, or a price in between those two prices. Inasmuch as the reference does not describe either the price vector or the revised price vector, it can hardly describe crediting a bidder with an item at a price dictated by the price vector or the revised price vector. The rejection asserts that the reference does disclose the "crediting" subject matter in the Abstract and paragraphs 15 and 80-81. Applicant has reviewed the Abstract and has found nothing remotely related to a price from the price vector, a price from the revised vector or the "crediting" subject matter (which of course

depends on the prices of the recited price vectors). Paragraph 15 relates to auction formats that pre-date the reference and likewise applicant has found nothing remotely related to a price from the price vector, a price from the revised vector or the "crediting" subject matter (which of course depends on the prices from the recited price vectors). Finally paragraphs 80-81 relate to the discount determination for evaluating bids for different quantities of a given lot (all of which relates to a single type of item). There is nothing here which relates to the price of a price vector, the price of a revised price vector or the "crediting" subject matter of the claim. Accordingly, claim 1 further distinguishes from the reference based on the subject matter of clause "f".

Clause "f" of claim 12 specifies "selecting a particular bidder and determining, for a selected one of the types of items, whether the sum of bids of other bidders is different in the further bids then in the received bids, and if it is, crediting the bidder with a number of the selected type of items equal to the change in the sum of the bids of other bidders at a price in a closed interval between the price contained in the price vector and the price contained in the revised price vector." It should be apparent that this is a more particular recitation along the lines of clause "f" of claim 1. In particular, clause "f" of claim 12 specifies the number of items of a given type to be credited and specifies that is equal to "the change in the sum of the bids of other bidders". As applicant has noted the reference does not describe crediting the bidder at a price specified in the price vector, the revised price vector or at a price in between those prices. Furthermore, the reference does not describe crediting the bidder with a particular number of the selected types of items based on "the change in the sum of the bids of other bidders". Thus, for both of these reasons applicant submits that claim 12 patentably defines over the reference.

The rejection asserts that the reference does disclose the selecting/crediting subject matter of claim 12 and relies on paragraphs 70-85 of the reference. To the contrary paragraphs 70-80 deal with price discrimination, i.e., how to evaluate bids for different quantities of an item. Paragraphs 81-2 (and fig. 9) deal with a buyer screen pointing out what information is received by the buyer. Paragraphs 83-84 deal with the seller screen and what information is input by a seller. Finally paragraph 85 (and figs 11a-c) relate to a flowchart of a process performed by a buyer interface. All this process effects is the acceptance of a bid from a buyer and a

determination of whether that is a winning bid. The buyer screen (with price information for a single type of item) is displayed (A14), the buyers bid quantity is evaluated (A18) to see if it meets the sellers price discrimination rules and if it does a minimum unit price is displayed (A22), the buyer then inputs a bid amount and is informed if the bid is a winning bid (A26). There is nothing here which relates to whether "the sums of bids of other bidders is different in the further bids than in the received bids" and then "crediting" the bidder with a particular number of items as claimed. Applicant submits the obviousness rejection is flawed for these reasons as well.

Claim 18 specifies "crediting, to a bidder at least one of those items, the bids for which exhibited, in the bids of bidders other than the bidder, a cumulative decrease in the further bids relative to the bids". In other words, a bidder will be credited "at least one of those items" where the bids of other bidders exhibited a decrease in the further bids (in response to the revised price vector) as compared to the bids (generated in response to the price vector). Applicant submits that the reference does not describe crediting to a particular bidder at least one of the items based on cumulative decrease in two sets of bids by other bidders. Applicant submits that this is another reason why claim 18 distinguishes from the reference.

The rejection asserts that the "crediting" subject matter is described in the Abstract and in paragraphs 15, 68 and 80-81 of the reference. Applicant has reviewed the Abstract and has found nothing remotely related to a cumulative change in quantities in the bids and further bids. Paragraph 15 relates to auction formats that pre-date the reference and likewise applicant has found nothing remotely related to a cumulative change in quantities in the bids and further bids. Paragraph 68 describes how the price discrimination allows evaluation of bids with different quantities. Finally paragraphs 80-81 relate to the discount determination for evaluating bids for different quantities of a given lot (all of which relates to a single type of item). There is nothing here which relates to "crediting" based on a change in bids of others. The obviousness rejection is flawed on this ground as well.

Claim 24 specifies, in clause "f", "crediting, to a selected bidder at least one of those items, the bids for which exhibited in bids of bidders other than the selected bidder, a cumulative decrease in the further bids relative to the bids to establish an item credit". Applicant submits there is no disclosure in the reference of crediting a particular item based on cumulative decrease of bids by other bidders for that particular item and thus claim 24 distinguishes from the reference for this additional reason. Clause "g" of claim 24 further specifies "reducing the item of credit in the event bids, by bidders other than the selected bidder, show cumulative increase bids for that item after the item credit is established." Likewise, there is no teaching that the credit established from clause "f" is adjusted based on cumulative changes in bids by other bidders. This is another basis on which claim 24 distinguishes from the reference. The rejection asserts that the "crediting" subject matter is described in the Abstract and paragraphs 15 and 80-81. Applicant has already demonstrated that the "crediting" subject matter is not found at these portions of the reference and those arguments will not be repeated here. The rejection further asserts that the "reducing" subject matter of the claim is found in paragraph 65 of the reference (relating to "reverse price"). The reference mentions a "reserve" price, which was apparently intended. However the reserve price is a price – it has no connection to the crediting claimed subject matter. The "crediting" subject matter credits to a bidder a certain quantity of an item, the "reducing" subject matter reduces this credit, i.e., the quantity of the credit is reduced. This cannot be anticipated by a discussion of any kind of price or reserve price. For this additional reason applicant asserts the rejection is flawed.

Claim 30 specifies, in clause "e", "limiting any further bid from a bidder so that the sum of the number items contained in a bid is less than or equal to the sum of the number of items contained in the bid submitted in the past." This constraint forces the bidder to either maintain constant the quantity contained in the bid or allow that quantity to decrease; in other words, the bidder cannot increase the quantity of item as a function of time. There is no description in the reference of applying a constraint based on the quantity found in the bid hence claim 30 distinguishes from the reference on this basis as well.

The rejection asserts that the "limiting" subject matter is described in the reference at paragraphs 70-85. To the contrary these portions of the reference deal with price discrimination, i.e., how to evaluate bids for different quantities of an item. Paragraphs 81-2 (and fig. 9) deal with a buyer screen pointing out what information is received by the buyer. Paragraphs 83-84 deal with the seller screen and what information is input by a seller. Finally paragraph 85 (and figs 11a-c) relate to a flowchart of a process performed by a buyer interface. All this process effects is the acceptance of a bid from a buyer and a determination of whether that is a winning bid. The buyer screen (with price information for a single type of item) is displayed (A14), the buyers bid quantity is evaluated (A18) to see if it meets the sellers' price discrimination rules and if it does a minimum unit price is displayed (A22), the buyer then inputs a bid amount and is informed if the bid is a winning bid (A26). There is nothing here which relates limiting any further bid of a buyer – indeed as far as the reference goes a buyer can make only one bid. For this additional reason applicant asserts the rejection is flawed.

Applicant has demonstrated that the §103 rejection of the independent claims is not justified. The dependent method claims further distinguish the claimed subject matter from the sole reference by specifying a relation between the types of items (2-3, 20-21, 26-27), specifying the price at which an item is credited (4-5, 16-17, 19, 22-23, 25, 28-29), specifying a procedure used in the crediting operation (6), specifying when the crediting occurs (7-8), describing a constraint or limitation on a bid (9-11, 31-40), specifying the target of a determination to credit, in terms of items and bidders (13-14), specifying when the determination is effected (15). Similar subject matter is found in the dependent apparatus claims.

The rejection asserts that paragraph 0061 describes that the price in the closed interval is the price contained in the revised price vector and the price in the closed interval is the price in the price vector. This assertion is inconsistent with the admission (p. 4) that the reference does not mention any revised price vector. The assertion is not supported by the reference. The cited paragraph has no connection with a price at which a bidder is credited with an item, rather it describes information input by a seller.

The rejection asserts that the subject matter added in claims 6-10 can be found in paragraphs 0070-0085 and the subject matter added in claim 11 can be found in paragraphs 0070-0086. Claims 6-8 further specify the crediting procedure and claims 9-10 describe a limitation on a bid. Paragraphs 70-80 describe the particular price discrimination used to compare bids which relate to different quantities; the price discrimination is specified by the seller and has no relation to crediting items to bidders or the procedure used to implement that function. Paragraphs 81-82 relate to Fig. 9 which illustrates a buyer screen which shows how a bid is made. Paragraphs 83-84 relate to Fig. 10 which illustrates the buyer screen and describes the input of further information by the seller. Paragraph 85 relates to fig. 11 and shows the operation of the buyer interface and how a successful bid is determined. There is no apparent connection with a price in the recited closed interval. Moreover, claim 6 calls for crediting at least one item of a selected type, which is a type of item based on a decrease in quantities in bids of others. There is nothing in paragraphs 70-85 about a cumulative decrease in quantities of a particular item in bids of others. Claims 7-8 also refer to cumulative decrease in quantities of bids of others; there is nothing in the reference about this subject. Claims 9-11 relate to limitations on quantities in bids – nothing in paragraphs 70-86 relates to this subject.

The rejection asserts that the subject matter added by claims 13-17 is found in paragraphs 70-86. Applicant asserts the assertion is not supported by the reference.

The rejection asserts that the subject matter added by claims 19 and 25 can be found in paragraphs 15 and 80-81. This subject matter relates to the price at which an item is credited. The assertion is inconsistent with the admission (p. 4) that the reference does not disclose a revised price vector. Applicant asserts that the reference does not support the assertion.

The rejection asserts that the subject matter added by claims 20-21 and 26-27 (to the effect that different items are related) can be found in paragraphs 16-22 (claims 20-21) or paragraph 61 (26-27). Neither assertion is supportable. Paragraph 16 describes the desire to sell many types of products – it does not describe an auction of items of more than one type and so it cannot describe that different items in *an* auction are related. Paragraphs 17-22 are no more

relevant. Paragraph 61 deals with the seller interface and does not describe an auction of more than one type of item.

The rejection's assertions comparing the subject matter of claims 22-23, 28-29, and 31-40 are not supported by the reference. Applicant asserts the rejection of the dependent claims is flawed for these reasons as well.

On the basis of the foregoing, applicant believes the only rejection of the claims in pending application is not well taken. Applicant requests withdrawal of the rejection and passage of the application to issue.

Attached is a Fee Transmittal authorizing the charging of the additional claim fees, as well as any other fees required in connection with this application, to Deposit Account 22-0185.

Dated:

Respectfully submitted,

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